

#### STATE OF TENNESSEE DEPARTMENT OF HEALTH **ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL Lab Services - Jackson Regional Lab Jackson, TN 38301 731-426-0686

TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

**Greg Denton** 

TDEC-WPC

6th Floor, L & C Tower Annex

401 Church Street

Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike

Knoxville, TN 37921

K00002262 Lab ID:

**Knoxville Regional Laboratory** 

Sampling Agency: TDEC: Division of Water Pollution Control

**Billing Code:** 

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

K00002262001

**Project Name:** 

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Emory River mile 2.1

**Project Site No.:** 

**Station No.:** 

EMORY002.1RO

Date/Time Collected:

04/02/2009 10:21

Sampler's Name:

Geoff Klein

County:

**ROANE - 73** 

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

**Billing Code:** 

TDEC-WPC

Send Report To:

327.34-20

Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

Received By:

Ken Hitchman

04/02/2009 14:25

TEST: Alkalinity, Total	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	9.8J	mg/L	3.8	10	M Chen	4/3/2009

**Field Determinations** 

**Dissolved Oxygen: 11.59** 

Chlorine, residual:

Conductivity:

Temperature:

7.34

11.76

45

pH Units

**uMHO** 

mg/L

**CFS** 

pH:

Other:

Flow:

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	15	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009

TEST: Residue, Suspended METHOD: SM 2540D							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009	

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit MQL - Method Quantitation Limit** 

K00002262002

**Project Name:** 

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

100' downriver from dredge 150' from shore 10'

10:33

**Field Determinations** 

Dissolved Oxygen: 11.79

Chlorine, residual:

Conductivity:

Temperature:

7.03

44

11.33

pH Units

uMHO

mg/L

**CFS** 

:Hq

Other:

Flow:

**Project Site No.:** 

**Station No.:** 

2A

Date/Time Collected:

04/02/2009

Sampler's Name:

Geoff Klein

County: Sample Matrix: ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

**Billing Code:** Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Alkalinity, Total	ME.	THOD: EPA 31	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	12	mg/L	3.8	10	M Chen	4/3/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009	

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002262003

**Project Name:** 

TVA-Ash Spill

Sample Description: Sampler Project Name: TVA Ash Spill

**Date/Time Collected:** 

200' upstream from weir 150' from shore 10' lak Chlorine, residual:

10:42

**Field Determinations** 

Dissolved Oxygen: 11.75

Conductivity:

Temperature:

6.97

44

11.31

pH Units

**uMHO** 

mg/L

**CFS** 

pH:

Other:

Flow:

**Project Site No.:** 

**Station No.:** 

2B

04/02/2009

Sampler's Name:

Geoff Klein

County:

**ROANE - 73** 

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

**Billing Code:** Send Report To: TDEC-WPC 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Alkalinity, Total	ME.					
ANALYTE	RESULT	UNITS	MDL	MQL A	ANALYZED BY:	DATE
Total Alkalinity	12	mg/L	3.8	10	M Chen	4/3/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	14	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	mI/L.	0.10	0.10	P Leathers	4/3/2009

TEST: Residue, Suspended	ME.					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

MQL - Method Quantitation Limit

K00002262004

**Project Name:** 

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Emory River mile 1.7

**Project Site No.:** 

Station No.:

EMORY001.7RO

Date/Time Collected:

04/02/2009 10:57

Sampler's Name:

Geoff Klein

County: Sample Matrix: ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

**Billing Code:** Send Report To: **TDEC-WPC** 327.34-20 TDEC-WPC

Agency Invoiced:

**TDEC-WPC** 

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

pH: 7.01

Chlorine, residual:

**Field Determinations** 

Conductivity:

45 uMHO

Temperature: 11.22 Dissolved Oxygen: 11.68

Other:

Flow:

**CFS** 

mg/L

pH Units

TEST: Alkalinity, Total ANALYTE	ME					
	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	13	mg/L	3.8	10	M Chen	4/3/2009

TEST: Hardness, Calcium	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	METHOD: SM 2540F				" '	
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002262005

**Project Name:** 

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA Ash Spill **Project Site No.:** 

**Station No.:** EMORY000.1RO **Date/Time Collected:** 11:10

Sampler's Name:

04/02/2009 Geoff Klein

County:

ROANE - 73

**Sample Matrix:** EFO:

Water

Sampling Agency:

Knoxville **TDEC-WPC** 

**Billing Code:** Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Alkalinity, Total	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	87	mg/L	3.8	10	M Chen	4/3/2009

**Field Determinations** 

**Dissolved Oxygen: 11.79** 

Chlorine, residual:

Conductivity:

Temperature:

7.03

46

12.56

pH Units

**uMHO** 

mg/L

**CFS** 

pH:

Other:

Flow:

TEST: Hardness, Calcium	ME	THOD: SM 350				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	14	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	WE	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009	

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit MQL - Method Quantitation Limit** 

K00002262006

**Project Name:** 

TVA-Ash Spill

**Sample Description:** 

Clinch River mile 2.3 near Hwy 70 bridge

Sampler Project Name: TVA Ash Spill

5

**Project Site No.:** 

**Station No.:** 

CLINC002.3RO

**Date/Time Collected:** Sampler's Name:

04/02/2009 11:24

County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC **TDEC-WPC** 

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

**Field Determinations** 

pH:

7.59

pH Units

Chlorine, residual:

Conductivity:

122 12.97 uMHO

Temperature: **Dissolved Oxygen: 11.87** 

mg/L

Other:

Flow:

**CFS** 

TEST: Alkalinity, Total	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	66	mg/L	3.8	10	M Chen	4/3/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	53	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

Sample Description:

K00002262007

**Project Name:** 

TVA-Ash Spill

Clinch River mile 4.5 near Sugar Grove Valley F Chlorine, residual:

**Field Determinations** 

Dissolved Oxygen: 11.73

Conductivity:

Temperature:

7.84

215

12.68

pH Units

**uMHO** 

mg/L

**CFS** 

pH:

Other:

Flow:

**Project Site No.:** 

Sampler Project Name: TVA Ash Spill

Station No.:

CLINC004.5RO

Date/Time Collected:

04/02/2009 11:38

Sampler's Name:

Geoff Klein

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

**Billing Code:** 

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

**Date/Time Received:** 

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Alkalinity, Total	METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	4/3/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	83	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** MQL - Method Quantitation Limit

K00002262008

**Project Name:** 

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Emory River mile 12.1

**Project Site No.:** 

Station No.:

EMORY012.1RO

**Date/Time Collected:** 

04/02/2009 12:32

Sampler's Name: County:

Geoff Klein **ROANE - 73** 

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

**Field Determinations** 

:Hq

7.8

pH Units

Chlorine, residual:

Conductivity:

49 13.25 uMHO

Temperature:

**Dissolved Oxygen: 11.17** 

mg/L

Other:

Flow:

**CFS** 

TEST: Alkalinity, Total	ME	THOD: EPA 31	•			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	11	mg/L	3.8	10	M Chen	4/3/2009

TEST: Hardness, Calcium	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	12	mg/L	0.7	1	M Chen	4/3/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	4/3/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	4/3/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 



#### STATE OF TENNESSEE DEPARTMENT OF HEALTH **ENVIRONMENTAL LABORATORIES**

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TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

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6th Floor, L & C Tower Annex

401 Church Street

Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921

Lab ID: K00002262

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

**Billing Code:** 

327.34-20

**Preliminary Report** 

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number: K00002262001 **Project Name:** TVA-Ash Spill

Sample Description: Emory River mile 2.1

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

Station No.: EMORY002.1RO Date/Time Collected: 04/02/2009 10:21

Sampler's Name: Geoff Klein County: ROANE - 73

Sample Matrix: Water EFO: Knoxville Sampling Agency: TDEC-WPC Billing Code: 327.34-20 Send Report To: TDEC-WPC Agency Invoiced: TDEC-WPC

**Priority Date:** 

Date/Time Received: 04/02/2009 14:25

Ken Hitchman Received By:

7.34 pH: pH Units Chlorine, residual: Conductivity: 45 **uMHO** 

Temperature: 11.76 **Dissolved Oxygen:** 11.59 mg/L

**Field Determinations** 

Other: Flow:

CFS

TEST: Digestion Metals						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	04/07/2009				A Bass	4/7/2009

TEST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	380	μg/L	2.9	10	A Wilson	4/8/2009

TEST: ICP-MS	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	290	μg/L	12.8	20	M Pattanayek	4/7/2009
Antimony	3.6	μg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	0.94J	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	28	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.43J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	0.79J	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.31J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	43	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	1.6	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/8/2009
Silver	0.03J	μg/L	0.03	0.25	M Pattanayek	4/7/2009
Thallium	0.33J	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	14	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	3.7J	μg/L	1.9	5	M Pattanayek	4/7/2009

Page 2 of 17

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

**Field Determinations** 

Dissolved Oxygen: 11.59

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

7.34

11.76

45

pH Units

uMHO

mg/L

**CFS** 

Lab-Sample Number:

K00002262001

**Project Name:** 

TVA-Ash Spill

Sample Description:

Emory River mile 2.1

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

Station No.:

EMORY002.1RO

10:21

**Date/Time Collected:** Sampler's Name:

04/02/2009 Geoff Klein

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: Billing Code:

TDEC-WPC

Send Report To:

327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Mercury	MET	HOD: EPA 24				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	PENDING	ua/L	0.13		NOT REPORTED	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262002

**Project Name:** 

TVA-Ash Spill

Sample Description:

100' downriver from dredge 150' from shore 10'

10:33

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

2A

Station No.:

**Date/Time Collected:** 

04/02/2009

Sampler's Name:

Geoff Klein

County:

**ROANE - 73** 

Sample Matrix: EFO:

Water

Knoxville

Sampling Agency:

TDEC-WPC

Billing Code:

327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

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04/02/2009 14:25

Received By:

Ken Hitchman

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ı	_		- I	u						ıa	14	.,		-	

pH:

7.03

pH Units

Chlorine, residual:

Conductivity:

44

uMHO

Temperature:

11.33 **Dissolved Oxygen: 11.79** 

mg/L

Other:

Flow:

**CFS** 

TEST: Digestion Metals	METHOD: EPA 200.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	04/07/2009				A Bass	4/7/2009	

TEST: ICP METHOD: EPA 200.7							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	790	μg/L	2.9	10	A Wilson	4/8/2009	

TEST: ICP-MS	ME <sup>-</sup>	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	1400	μg/Ĺ	64.0	100	M Pattanayek	4/8/2009
Antimony	3.4	µg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	3.0J	µg/L	0.93	5	M Pattanayek	4/7/2009
Barium	46	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	0.21J	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	1.0	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	5.0	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	1.8	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	42	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	3.0	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/7/2009
Silver	0.03J	μg/L	0.03	0.25	M Pattanayek	4/7/2009
Thallium	0.14J	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	19	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	6.7	μg/L	1.9	5	M Pattanayek	4/7/2009
	Pa	age 4 of 17			•	

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

**Field Determinations** 

Dissolved Oxygen: 11.79

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

7.03

44

11.33

pH Units

**uMHO** 

mg/L

**CFS** 

Lab-Sample Number:

K00002262002

**Project Name:** 

TVA-Ash Spill

Sample Description:

100' downriver from dredge 150' from shore 10'

10:33

Sampler Project Name: TVA Ash Spill

**Project Site No.:** Station No.:

2A

**Date/Time Collected:** 

04/02/2009

Sampler's Name:

Geoff Klein

County: Sample Matrix:

ROANE - 73 Water

EFO:

Knoxville

Sampling Agency:

TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Mercury METHOD: EPA 245.1							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	PENDING	μg/L	0.13		NOT REPORTED	11	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262003

**Project Name:** 

TVA-Ash Spill

Sample Description:

200' upstream from weir 150' from shore 10' lake Chlorine, residual:

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

2B

Station No.:

Date/Time Collected:

04/02/2009 10:42

Sampler's Name:

Geoff

County:

ROANE - 73

Sample Matrix: EFO:

Water

Knoxville

Sampling Agency: Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

Date/Time Received:

TDEC-WPC TDEC-WPC

**Priority Date:** 

04/02/2009

14:25

Received By:

Ken Hitchman

ff Klein	Flow:	CFS

pH:

Other:

**Field Determinations** 

**Dissolved Oxygen:** 11.75

Conductivity:

Temperature:

6.97

44

11.31

pH Units

uMHO

mg/L

TEST: Digestion Metals	METHOD: EPA 200.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	04/07/2009				A Bass	4/7/2009	

TEST: ICP METHOD: EPA 200.7							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	440	μg/L	2.9	10	A Wilson	4/8/2009	

TEST: ICP-MS	ME	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	600	μg/L	32.0	50	M Pattanayek	4/8/2009
Antimony	3.2	μg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	1.9J	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	32	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.58J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	1.8	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.67J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	43	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	2.0	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/7/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	4/8/2009
Thallium	0.03J	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	16	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	4.7J	μg/L	1.9	5	M Pattanayek	4/7/2009

Page 6 of 17

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

**Field Determinations** 

Dissolved Oxygen: 11.75

Conductivity:

Temperature:

pH:

Other:

Flow:

6.97

44

11.31

pH Units

**uMHO** 

mg/L

**CFS** 

Lab-Sample Number:

K00002262003

**Project Name:** 

TVA-Ash Spill

Sample Description:

200' upstream from weir 150' from shore 10' lake Chlorine, residual:

10:42

Sampler Project Name: TVA Ash Spill Project Site No.:

2B

Station No.:

Date/Time Collected: Sampler's Name:

04/02/2009 Geoff Klein

County: Sample Matrix:

ROANE - 73 Water

EFO:

Knoxville

Sampling Agency: Billing Code: Send Report To:

TDEC-WPC 327.34-20 TDEC-WPC TDEC-WPC

Agency Invoiced:

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Mercury METHOD: EPA 245.1							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	PENDING	μg/L	0.13		NOT REPORTED	11	

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262004

**Project Name:** 

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA Ash Spill

3

**Station No.:** 

EMORY001.7RO

Date/Time Collected:

**Project Site No.:** 

04/02/2009 10:57

Sampler's Name: County:

Geoff Klein ROANE - 73

Sample Matrix:

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

**Field Determinations** 

pH:

7.01

pH Units

Chlorine, residual:

Conductivity:

45

uMHO

Temperature:

11.22 **Dissolved Oxygen: 11.68** 

mg/L

Other:

Flow:

**CFS** 

TEST: Digestion Metals	METHOD: EPA 200.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	04/07/2009				A Bass	4/7/2009	

TEST: ICP METHOD: EPA 200.7							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	330	μg/L	2.9	10	A Wilson	4/8/2009	

TEST: ICP-MS	METHOD: EPA 200.8					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	320	μg/L	12.8	20	M Pattanayek	4/8/2009
Antimony	3.1	μg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	U	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	28	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.37J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	0.75J	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.27J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	41	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	1.5	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/7/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	4/8/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	17	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	3.4J	μg/L	1.9	5	M Pattanayek	4/7/2009
	Pa	age 8 of 17			,	

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262004

**Project Name:** 

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

Station No.:

EMORY001.7RO

Date/Time Collected:

04/02/2009 10:57

Sampler's Name: County:

Geoff Klein **ROANE - 73** 

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

pH:	7.01
рп.	7.01

**Field Determinations** 

pH Units

Chlorine, residual:

Conductivity:

45

uMHO

Temperature:

11.22

Dissolved Oxygen: 11.68

mg/L

Other:

Flow:

CFS

TEST: Mercury METHOD: EPA 245.1						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	PENDING	μg/L	0.13		NOT REPORTED	11

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262005 TVA-Ash Spill

**Project Name:** Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

Station No.: Date/Time Collected: EMORY000.1RO 04/02/2009

Sampler's Name:

Geoff Klein

County: Sample Matrix:

ROANE - 73 Water

EFO: Sampling Agency: **Billing Code:** 

Knoxville TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

**Field Determinations** 

pH:

7.03

pH Units

Chlorine, residual:

Conductivity:

46

uMHO

Temperature:

12.56 **Dissolved Oxygen: 11.79** 

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	04/07/2009				A Bass	4/7/2009

TEST: ICP	MET	ΓHOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	360	μg/L	2.9	10	A Wilson	4/8/2009

TEST: ICP-MS	METHOD: EPA 200.8					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	300	μg/L	32.0	50	M Pattanayek	4/8/2009
Antimony	3.1	µg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	1.5J	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	30	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.37J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	1.2	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.32J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	37	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	1.6	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	1.4J	μg/L	1.3	5	M Pattanayek	4/7/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	4/8/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	14	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	4.3J	μg/L	1.9	5	M Pattanayek	4/7/2009

Page 10 of 17

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

**Field Determinations** 

Dissolved Oxygen: 11.79

Chlorine, residual:

Conductivity:

Temperature:

7.03

46

12.56

pH Units

uMHO

mg/L

**CFS** 

pH:

Other:

Flow:

Lab-Sample Number:

K00002262005

**Project Name:** 

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

**Station No.: Date/Time Collected:**  EMORY000.1RO

11:10

Sampler's Name:

04/02/2009 Geoff Klein

County:

ROANE - 73

Sample Matrix: EFO:

Water

**Sampling Agency:** 

Knoxville TDEC-WPC

**Billing Code:** Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Mercury	METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	PENDING	μg/L	0.13		NOT REPORTED	11

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262006

**Project Name:** 

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3 near Hwy 70 bridge

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

5

Station No.: **Date/Time Collected:**  CLINC002.3RO

Sampler's Name:

04/02/2009 11:24

County:

Geoff Klein

Sample Matrix:

**ROANE - 73** 

EFO:

Water Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

pH:

7.59

pH Units

Chlorine, residual:

Conductivity:

122

**uMHO** 

Temperature:

12.97 Dissolved Oxygen: 11.87

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	04/07/2009				A Bass	4/7/2009

TEST: ICP	MET	THOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	340	μg/L	2.9	10	A Wilson	4/8/2009

TEST: ICP-MS	METHOD: EPA 200.8					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	350	μg/L	6.4	10	M Pattanayek	4/8/2009
Antimony	3.1	μg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	1.5J	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	35	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.35J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	1.7	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.37J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	32	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	1.8	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/7/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	4/7/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	14	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	3.9J	μg/L	1.9	5	M Pattanayek	4/7/2009

Page 12 of 17

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262006

**Project Name:** 

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3 near Hwy 70 bridge

Sampler Project Name: TVA Ash Spill

5

**Project Site No.:** Station No.:

CLINC002.3RO

**Date/Time Collected:** 

04/02/2009

Sampler's Name:

Geoff Klein ROANE - 73

County: Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

F	ield	Determinations
_	u.	7.50

pH:

7.59

pH Units

Chlorine, residual:

Conductivity:

122 12.97 uMHO

Temperature:

Dissolved Oxygen: 11.87

mg/L

Other:

Flow:

CFS

TEST: Mercury METHOD: EPA 245.1						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	PENDING	µg/L	0.13		NOT REPORTED	11

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262007

**Project Name:** 

TVA-Ash Spill

Sample Description:

Clinch River mile 4.5 near Sugar Grove Valley R

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

Station No.:

CLINC004.5RO

11:38

**Date/Time Collected:** 

04/02/2009 Geoff Klein

Sampler's Name: County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20

Send Report To:

TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

pH:	7.84
Chlorine, re	idual:

Field Determinations

Conductivity:

215

**uMHO** 

mg/L

pH Units

Temperature:

12.68 **Dissolved Oxygen: 11.73** 

Other:

Flow:

**CFS** 

TEST: Digestion Metals	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	04/07/2009				A Bass	4/7/2009

TEST: ICP	ST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	290	μg/L	2.9	10	A Wilson	4/8/2009	

TEST: ICP-MS	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	220	μg/L	12.8	20	M Pattanayek	4/8/2009
Antimony	3.1	μg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	0.97J	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	35	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.25J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	1.2	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.26J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	33	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	1.9	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/7/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	4/8/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	13	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	3.0J	μg/L	1.9	5	M Pattanayek	4/7/2009

Page 14 of 17

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

**Field Determinations** 

Dissolved Oxygen: 11.73

Conductivity:

Temperature:

pH:

Other: Flow:

7.84

215

12.68

pH Units

uMHO

mg/L

**CFS** 

Lab-Sample Number:

K00002262007

**Project Name:** 

TVA-Ash Spill

Sample Description:

Clinch River mile 4.5 near Sugar Grove Valley R Chlorine, residual:

Sampler Project Name: TVA Ash Spill Project Site No.:

Station No.:

CLINC004.5RO

Date/Time Collected:

04/02/2009

Sampler's Name:

Geoff Klein

County:

ROANE - 73

Sample Matrix: EFO:

Water Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009 14:25

Received By:

Ken Hitchman

TEST: Mercury	ry METHOD: EPA 245.1						
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE	
Mercury	PENDING	µg/L	0.13		NOT REPORTED	11	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number: K00002262008
Project Name: TVA-Ash Spill

Sample Description: Emory River mile 12.1

Sampler Project Name: TVA Ash Spill

Project Site No.: 1

Station No.: EMORY012.1RO Date/Time Collected: 04/02/2009 12:32

Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water

Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC

**Priority Date:** 

Agency Invoiced:

**Date/Time Received:** 04/02/2009 14:25

TDEC-WPC

Received By: Ken Hitchman

Field Determinations

pH: 7.8 pH Units

Chlorine, residual:

Conductivity: 49 uMHO

Temperature: 13.25

**Dissolved Oxygen:** 11.17 mg/L

Other:

Flow: CFS

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	04/07/2009				A Bass	4/7/2009

TEST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY: D					
Iron	160	μg/L	2.9	10	A Wilson	4/8/2009

TEST: ICP-MS	ME <sup>-</sup>					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	150	μg/L	6.4	10	M Pattanayek	4/7/2009
Antimony	3.1	μg/L	0.33	1	M Pattanayek	4/7/2009
Arsenic	U	μg/L	0.93	5	M Pattanayek	4/7/2009
Barium	25	μg/L	2.5	5	M Pattanayek	4/7/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	4/7/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	4/7/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	4/7/2009
Cobalt	0.33J	μg/L	0.04	1	M Pattanayek	4/7/2009
Copper	0.84J	μg/L	0.38	1	M Pattanayek	4/7/2009
Lead	0.85J	μg/L	0.10	1	M Pattanayek	4/7/2009
Manganese	32	μg/L	0.42	1	M Pattanayek	4/7/2009
Nickel	1.5	μg/L	0.25	1	M Pattanayek	4/7/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	4/8/2009
Silver	U	μg/L	0.03	0.25	M Pattanayek	4/7/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	4/7/2009
Vanadium	13	μg/L	3.4	5	M Pattanayek	4/7/2009
Zinc	4.4J	μg/L	1.9	5	M Pattanayek	4/7/2009

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Results on this report should only be considered preliminary, and the lab should be contacted for Actual Final Results.

Lab-Sample Number:

K00002262008

**Project Name:** 

TVA-Ash Spill

Sample Description:

Emory River mile 12.1

Sampler Project Name: TVA Ash Spill

**Project Site No.:** 

Station No.:

EMORY012.1RO

Date/Time Collected:

04/02/2009 12:32

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water Knoxville

Sampling Agency:

TDEC-WPC 327.34-20

Billing Code: Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

04/02/2009

14:25

Received By:

Ken Hitchman

Field Determinations

pH:

7.8

pH Units

Chlorine, residual:

Conductivity:

49

13.25

**uMHO** 

Temperature:

Dissolved Oxygen: 11.17

mg/L

Other:

Flow:

CFS

TEST: Mercury	METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	PENDING	µg/L	0.13		NOT REPORTED	11

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit